



new horizons in architecture with stainless steel

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Front Cover: Stainless steel stairway with single stringer and cantilevered steps serves as abstract design element.

Architects: Daniel Badani, Michel Folliasson, Abro Kandjian and Pierre Roux-Dorlut.

Photo: Baltazar Korab.

Back Cover: "Contrappunto," 18-foot-high abstraction in stainless steel, stands in the loggia of the United States Plywood Building, New York, where its free-curving swirls accentuate the straight lines of the building's entrance. Sculptress: Beverly Pepper.

Photo: Ezra Stoller.

Photo courtesy William Kaufman Organization, builder.

INTRODUCTION

In the new architecture, which is changing the face of so many American cities, one modern material is particularly noticeable both for its rich appearance and for its permanence: stainless steel. Over the past few decades, more and more creative architects have been specifying stainless for a wide variety of applications, and have found that its esthetic and functional advantages are of great benefit in the final realization of their designs.

Stainless steel is not one metal but a family of steel alloys, all of which contain at least 11.5 per cent chromium for corrosion resistance. Most of the stainless steels used in architecture also include nickel for further resistance to corrosion, while manganese, molybdenum, or other metals may be added for special characteristics.

Stainless' advantages which are of special interest to architects include its attractive appearance, permanence, ease of main-

tenance, and strength.

Stainless steel blends with other materials; its subtle sheen does not overwhelm or intrude on other design and color elements. Rather, it complements, reflects and highlights adjacent materials.

Stainless will not corrode, pit, tarnish or deteriorate under normal conditions, and special grades have been developed for use in especially corrosive atmospheres, such as sea coast or industrial neighborhoods. This means that there is no need for refinishing or replacement of stainless members, and the metal does not form corrosion products that could stain adjacent materials.

A corollary of this corrosion resistance is the ease with which stainless can be maintained. All that is generally needed is a regularly scheduled washing with detergent and water or with one of the commercial stainless steel cleaners, and in exterior applications this can often be accomplished in the

course of the regular window washing.

Stainless' high ratio of strength to weight permits the use of gages much lighter than are usually needed in other metals, and permits the design of delicate, thin-line members where desired. Furthermore, stainless is a hard metal, and stands up well in heavy traffic areas.

These advantages make stainless steel a highly desirable material for widely differing applications in buildings of all types. Among the more widespread uses of the metal, all of which are illustrated in these pages, are: curtain wall framing, window and door framing, wall panels, spandrels, railings, column covers, staircases, electric stairways, lighting fixtures, fireplace hoods, furniture, and kitchen equipment. Other uses include elevators, roofing, fascia, and flashing.

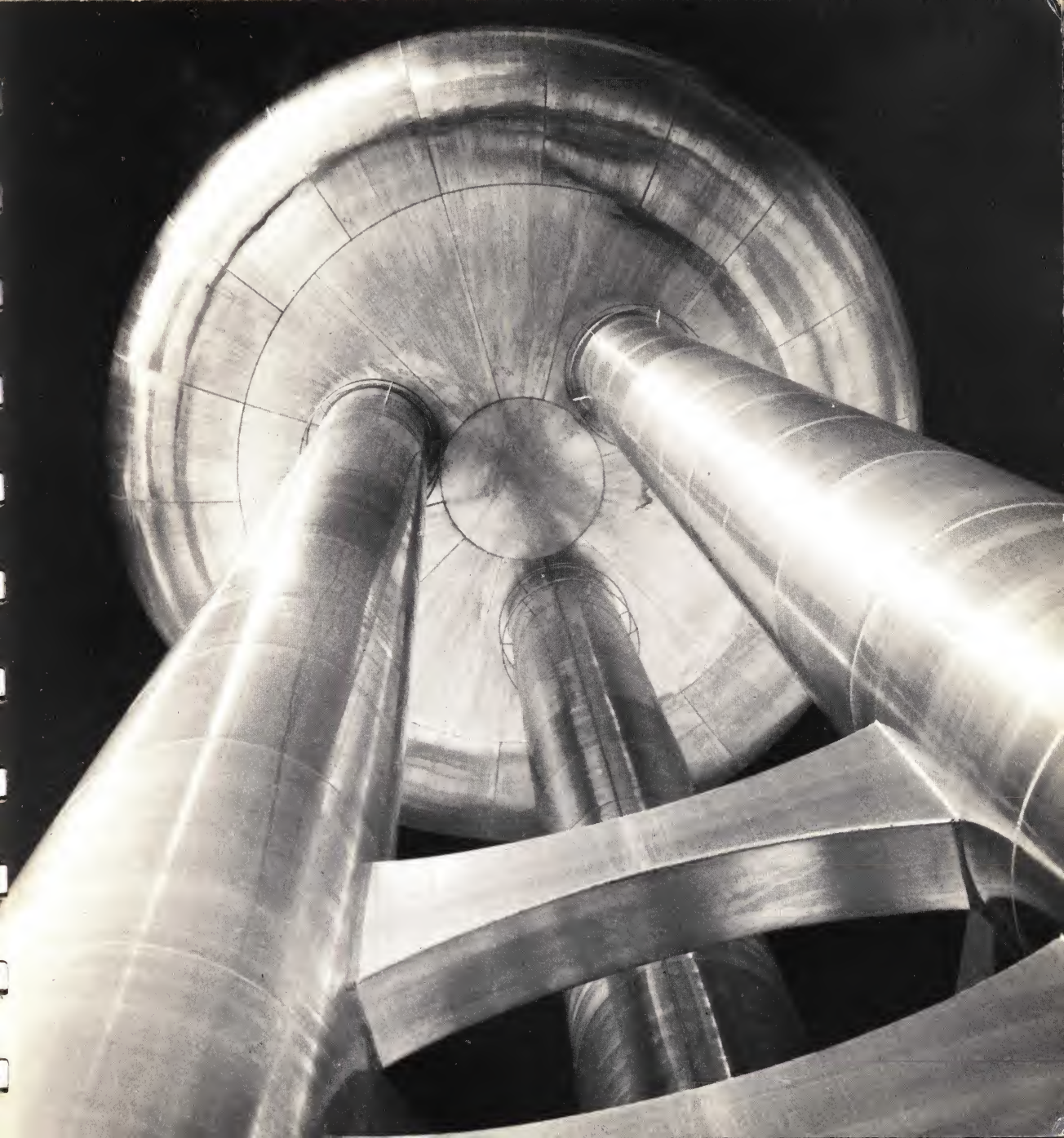
Detailed descriptions of the design examples illustrated are available from the Committee of Stainless Steel Producers.

Roof terrace on fifteenth floor of Los Angeles Hall of Records provides open area around employee cafeteria. Spider leg supports clad in stainless steel with highly reflective No. 7 finish support a shading roof projecting beyond the window wall. The architect designed the supports to achieve a classical dignity in the elevation, with the rich gleam of the metal to add a festive touch. Architects: Richard J. Neutra and Robert E. Alexander, Douglas Honnold and John Rex, James Friend, Herman C. Light. **Photo:** Julius Shulman.



Gleaming water tower at General Motors Technical Center, Warren, Mich., is constructed from stainless-clad structural steel plates. Cladding is 1/16 inch stainless on 3/8 inch steel. Welds have been hand ground to blend with No. 4 finish. Associated architects: Eero Saarinen—Smith, Hinchman and Grylls. Photo: Baltazar Korab.







Water intake gate structures, nearly 100 feet high, at Niagara Power Project, Niagara Falls, New York, are sheathed in stainless steel for high resistance to the corrosive atmosphere. Engineers and designers: Uhl, Hall and Rich. Architectural consultant: John B. Peterkin. Photo: Harold Corsini.





Dramatic circular facade of Brookfield (Ill.) Federal Savings and Loan Association is accented by stainless steel mullions, while exterior columns, sheathed in stainless, support roof trusses that permit an uninterrupted interior. Architects: Pavlecic and Kovacevic. **Photos:** Hedrich-Blessing.



Decorative screen of stainless steel on Main-Martime parking garage, White Plains, N. Y., permits ventilation but protects neighbors from headlight glare. Panels of stainless with three different finishes are arranged in a geometric checkerboard pattern. Architects and engineers: Abbott, Merkt and Company. **Photo:** Ezra Stoller.





Stainless steel interior trim brightens showroom of Aloe Division, Brunswick Corporation, in Los Angeles, and harmonizes with the medical equipment—predominantly stainless—on display. Columns are fireproofed steel sheathed in stainless with No. 4 finish; screws are concealed behind the snap-on center strip. Beam-like fixture on column, counterbalancing lamp, is a stainless steel trough holding lighting strip.

Architect: Richard J. Neutra and Associates.

Photo: Julius Shulman.



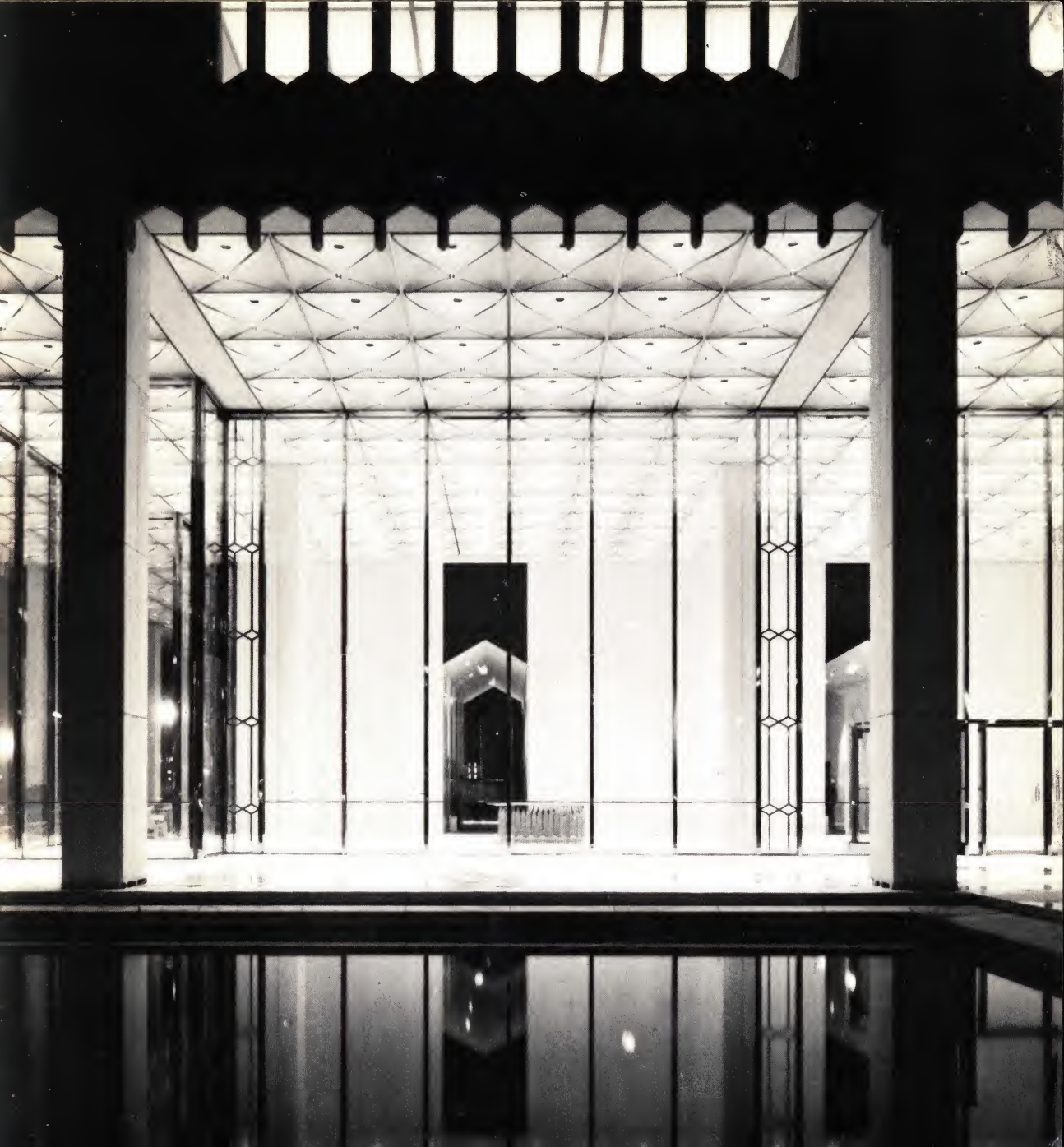
Stainless steel and white concrete combine to give clarity and spaciousness to the House of Excellence, Laguna Niguel, Calif. Built as a prototype for new departures in residential design, the house makes extensive use of stainless steel in door and window frames, locks and hardware, railings for balconies and swimming pool, all kitchen appliances, roof gravel stop, and chimney cap. Sliding glass doors opening on balcony are framed in lightweight stainless steel sections. Architects: John Galbraith and Associates. Photo: Dale Healy.



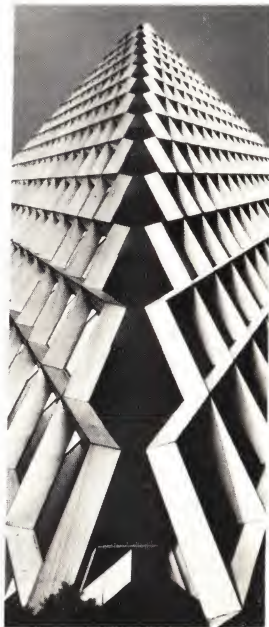
Natural Gas Monument at Edmonton, Alberta, International Airport, symbolizes the importance of natural gas to the region's economy. The 62-foot treelike structure of stainless steel tubing has sixteen branches sprouting from the nine-inch trunk, and a two-foot jet of gas flares from the end of each. Stainless steel was chosen both for its permanence, and so that the monument would be service-free. Architect and designer: Norman Slater. Photo: Norman Slater.



Lobby of Michigan Consolidated Gas Company Building, Detroit, Mich., has light, airy appearance, enhanced by window wall framed in stainless steel with highly reflective No. 7 finish. Mullions are steel rods held in tension and sheathed with stainless. Stainless steel also finds wide use throughout the lobby as marble column trim, elevator doors, hand rails, and revolving doors. Associated architects: Minoru Yamasaki—Smith, Hinchman and Grylls. Photo: Baltazar Korab.



A new concept in building design, the load-bearing truss-wall, forms a lattice-like exterior on the IBM Building (Five Gateway Center), Pittsburgh, Pa. Wall trusses are sheathed with sheets of stainless steel. A fine textured pattern stiffens the light gage stainless, decreases reflection. **Architects:** Curtis and Davis. **Photo:** Ed Walsh.





Stainless steel adds accent to banking floor of Irving Trust Company's Rockefeller Center office, New York. Stainless steel glass-topped writing tables stand in center of hall, and stainless counter tops and station panels stand up to heavy traffic at teller stations. Architects: Carson, Lundin and Shaw. **Photos:** Louis Reens.





Stainless steel blends with combination of materials in Decatur Federal Building, Decatur, Ga. Main entrance, which derives color accent from panels of Brazilian black granite and Alabama cream marble, is framed by slender members roll formed from $\frac{1}{8}$ inch thick stainless steel. Fabricated in sections, members were welded on site and welds hand ground and polished to blend into the No. 4 finish. Architect: Pope H. Fuller. **Photo:** Gabriel Benzur.



Unusual column and beam units at entrance of City-County Building, Indianapolis, Indiana, are formed from relatively light gage stainless steel backed by concrete—the latter material imparting rigidity and a positive anchorage system. Columns and beams continue inside entrance, forming major design element in lobby interior. Stainless was specified for all metal work subject to abuse, because of its hard surface and the ease with which it can be cleaned. Allied architects and engineers: Lennox, Matthews, Simmons and Ford; Wright, Porteous and Lowe. Photo: Indianapolis Photo Co.



New electric stairway with transparent balustrade has the smoothness of its sweeping lines accentuated by the use of bright stainless steel stringers, railing and posts. Stainless blends well with black enamel of skirt and clear glass of balustrade (tinted glass can also be used). Polished No. 4 finish is easy to keep clean. Stairway, installed in Sears, Roebuck and Company retail store, Atlanta, Ga., was fabricated by Westinghouse. Designer: Eliot Noyes. Photographer: Carl Dixon.





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